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# Hornberger's Gladiolus Annual

1934



F. C. HORNBERGER, Clark Street, Hamburg, N. Y.

# Hornberger's—Flower—in—Bulbs

## "NONE BETTER GROWN"

TO ALL OUR MANY PATRONS AND FRIENDS: Who have sent us so many fine letters of approval in the last year, thanking us for good service, extra count, high quality and many other things. We wish we had the space to publish all of your nice letters, however we have selected a few which we print, trusting these will give some indication, of the kind and variety of letters we receive.

WE SINCERELY THANK YOU: Below we print some of these letters taken at random:

### Well Known Grower Likes AFLAME

"Your Aflame last year was the sensation of my whole planting. Wish I could say the same for some of the other varieties." J. IVAN BOSS.  
May 2, 1932.

### From Arkansas

DEAR SIR:

I had on trial almost 300 varieties of "glads" last season and your AFLAME was the most striking one in the garden. The smallest No. 7 size that I picked out of the bulblets bloomed and the 5 No. 2 bulbs sent me all made spikes, just under six feet tall without forcing in any way. The florets are all over six inches across and thirty inches from the bottom floret to the bud at tip of spike. *SOME GLAD* I call it. Yours truly, J. L. H.

### From England

A reprint from, "WESTERN DAILY PRESS AND BRISTOL MIRROR", August 4, 1933. Issued under "Notes of the day" Gladioli:

"Lieut. Col. S. Smith of St. Anne's Park brought to this office yesterday a very beautiful example of the new gladioli, "Aflame". This was the finest specimen of gladioli bloom the writer has seen. The color was gorgeous and the bottom flower measured seven inches across. Col. Smith is an enthusiast for this particular flower."

### AN INVESTMENT, \$2.25

South Carolina.

DEAR MR. HORNBERGER:

I am writing you this letter with the thought that you might be interested in the results I had with some Gladiolus bulbs that I bought of you last spring.

Not having too much money to put in new bulbs I sent you an order for 300 No. 5 Minuets at a cost of \$2.25, and planted them with the intention of growing them on to larger size for next year, without any thought of getting any blooms worth cutting. You can imagine my surprise when they made as fine spikes as any of my large bulbs, and sold in my yard at five cents each for the entire lot.

I dug them the other day and have never seen a finer lot of No. 1 size and over, with loads of little bulblets. Signed —H.  
November 5, 1933.

### From France

September, 1933

The bulbs you sent to my friend, Madame de Moussac, at the Chateau de Bois-morand, proved to be wonderful. I wish you would send her an order of additional varieties. —COUNTESS DE FRIES.

### From Cuba

Towns, noted Horticulturist, says "We have found glad, Mrs. F. C. Hornberger, to be the finest white we have ever seen." —T. T.

This is **one** of many letters we receive telling us of results secured with our bulbs. 300 spikes at 5c each is \$15.00 for cut flowers, add to that the value of 300 #1 Minuets and the large amount of bulblets that go with bulbs grown from young stock and I think the total will surprise you; and all resulting in one season from an investment of \$2.25 for 300 No. 5 size bulbs. This letter is ample testimony why we use the slogan, "NONE BETTER GROWN".

Growers, let us quote you a (net) price; all sizes and bulblets. Every sign indicates that the nation will soon be back to normal; now is the time to plan wisely and invest judiciously.

MY DEAR MR. HORNBERGER:

I know that I owe a testimonial for the gladiolus you have sent me this season. To begin with, I have never seen such quality in glad bulbs.

You have been extremely generous and you are very prompt in your shipments, everything being well wrapped and plainly labeled.

I like the way you arrange your Catalogs better than the way others do. Choosing varieties and prices that I can afford is so easy. And you have chosen to propagate a very fine selection and at a reasonable price for buyers. All this applies to those who buy at retail and those who buy at wholesale. The way you sell is especially fine for those who are starting a gladiolus business and are not burdened with money. I shall certainly advise all my friends to buy of you. Thank you so much.

June, 1933.

THE F—— FLOWER FARM.

**A Noted Garden Club Leader** gives our Catalog her full approval. This lady is known in a national way in the Garden Club movement.

Georgia, March 16, 1933.

DEAR SIR:

*First*—I want to thank you for your Gladiolus Annual and your plain, straightforward, unbiased, enlightening treatment of different gladiolus subjects. It has been worth more to me concerning gladiolus than any other source of information that I have been able to secure, and I take 4 *gardening magazines* and get catalogs from somewhere between 25 and 50 *Gladiolus Growers*. If everybody was as honest about the different varieties, etc. as your book is we would get somewhere in flower culture and we would *all* be eager to spend more money each year for beautification. Keep it up!

Signed—MRS. D.

**A NATIONALLY KNOWN ENTOMOLOGIST** congratulates us on our 1933 article, "Co-operation vs. Thrips Control".

February 17, 1933.

DEAR MR. HORNBERGER:

I have read your discussion of the gladiolus thrips in your 1933 Catalog with much interest. I think you should be congratulated for the way in which you have presented this menace to gladiolus.

Cooperation among growers seems to be the keynote of success in the control and, possibly, elimination of this pest and you have continuously emphasized this point all through your discussion.

Signed DR.—

## From New Zealand

Auckland, March 21, 1933.

DEAR SIR:

I must thank you for your very interesting catalogs, and the information given.

From Errey Bros. I obtained six bulbs of "Aflame" and most visitors to the gardens considered it one of the best in my collection.

J. T.

## MAKE YOUR OWN SPECIAL COLLECTIONS

### “The More Cash You Send, the Larger the Discounts”

It is my opinion that when you buy the average special collection, you pay practically as much as you do when you order in the regular way. Take the average Catalog and figure up all the extra discount, the extra stock offered with orders, and the promise of free bulbs of high priced varieties on larger orders, as well as cash coupons and if we “call a spade a spade” you can readily see where the (NET) Retail, prepaid price will amount, in reality, to 20% to 50% less than the actual listed prices. We find that the general rule where (collections) are offered is to offer them NET without any extra Catalog discounts. For myself, when I purchase, I like to get NET prices without a lot of Catalog extras that I may or may not desire. So I am going to let you select your own collections if you want them—HERE ARE THE RULES:

**SPECIAL COLLECTIONS:** Catalog discounts do not apply: We offer Large, medium, and small bulbs, also bulblets, as listed in the Descriptive Retail Price List; All collections must be priced from \$2.00 up, and no one item is to be for less than .20c and by an item we mean .20c worth, or more, of any one size as listed. Proceed the same as you do in ordering in regular way, enter quantity wanted, size wanted, Name of variety, and the catalog price of the item, or items, that you have selected, add up the total price, and send cash in full with order; When we receive your order, marked **SPECIAL COLLECTION OFFER**, we will increase the quantity of each item ordered, from 15% up, depending on value of the order, the varieties ordered, etc.; We will then mail you a copy of the **new increased** order; we will just show the new figures, and omit the quantity you put down, so keep a copy of your original order for comparison; If you are not satisfied after receiving your copy of order, as received, you may cancel same and your money will be returned at once, this offer is made subject to full approval.

**REASONS FOR THIS OFFER:** To give you the **lowest net price** we can offer, minus all Catalog extras the same as others are doing in their pages of Special Offers. In this way we can make somewhat better discounts than are offered on Terms of Sale Page as there are general discounts and extras, while with this plan I am trying, the discounts will be more individual, depending on what you order, the value of the order, and the quantity we have available. In some instances, discounts on single items may run as high as 50%, at least you will be the judge and are under no obligation to accept if not as big a value as any other grower offers. We will increase quantity and if necessary size. Should we happen to be out of an item, or size, as often happens, when you order in the regular way, we will cancel such item, and in its place show a good substitute, or other size; if such substitution is not desired, you can let us know if you desire money returned, or apply to any other item on list, a post card will do, of course we may have all items on hand, but all growers must consider the matter of a possible substitution at times.

**SPECIAL COLLECTIONS: ALL COLOR MIXTURES:** We receive so many letters from customers telling us they like a nice assortment of good colors and good varieties, but do not care to keep them under separate label; We make these collections for these patrons; All hand mixed and assorted in a well balanced mixture; Prices are for large bulbs, with 25 or 50 bulbs at 100 rate price. (30) or more good varieties in mixture; \$2.00. (40) or more varieties in mixture; \$3.00. (50) or more varieties in mixture; \$4.00 per 100 prepaid. Medium sizes at one-half these prices; If there should be any particular colors or varieties you do not want included, just make a notation on order to that effect.

**SPECIAL COLLECTIONS: COMMERCIAL CHAMPIONS MIXTURE:** 20 or more varieties all colors. We use ONLY our very strongest growers, the new and proven champions of commerce, we use varieties like Betty Nuthall, Aflame, Mrs. FCH, and similar varieties, the idea is to give you a mixture that will give you nice results under all kinds of trying conditions, and will even stand a little neglect, and still give you nice flowers, and will have a long life, Large, \$3.00 per 100; Medium, \$2.00 and Small \$1.00; 25 or more at the 100 rate.

**OUR FREE NAPHTHALENE SERVICE:** We believe that we have completely eliminated all thrips. We had one of the dryest seasons in many years and did not spray or dust, yet we had no damage to our crop. But as we pointed out last season, no matter how clean you regard your crop, it is very cheap insurance to keep it clean, and we have decided that we will add the right amount of Naphthalene to all bulbs we pack this season when the customer **so requests**. This will permit you to open the bags and count the bulbs when you receive them, and if you find them O. K. tie up the bag again and place in a room 60 F. or warmer, and let them fumigate for three weeks. Then take them out and store in the regular way. Remember this service is absolutely free on request.

## **HOW TO PLANT AND GROW GLADS**

We have a bulletin of about three catalog pages of general information, How to plant, Mark, Destroy weeds, Cutting flowers, Blooming dates, Harvest, Digging, Storing, etc. This bulletin is prepared in particular for persons who have had little or no experience in growing glads and is free on request, or we will include copies when we ship your order if you so request. This bulletin takes up the minor details of garden culture while our articles in this catalog handle culture in a more general way.

## **TERMS OF SALE**

### **Please Read Carefully Before Sealing Your Order**

**HOW SHIPPED AND WHEN:** All Retail orders are sent prepaid by parcel post or by express. We ship most of our orders in March or April, but will send order when you instruct. In very cold weather it is more safe to send via express as the Express Company will insure against freezing, but the Post Office will not cover loss by freezing, even if bulbs are insured.

**WE GUARANTEE TO SATISFY:** If there is anything wrong when order is received, or if bulbs do not prove as represented after flowering, if you will write us fully, we will do our utmost to adjust matters to your complete satisfaction.

**EXTRAS ON CASH ORDERS:** On cash orders of \$2.00 to \$5.00 you can select 10% extra in bulbs of your own choosing; From \$5.00 to \$25.00 select 15%; From \$25.00 to \$50.00 select 20%; And over \$50.00 select 25% extras; These discounts **do not** apply to collections, or Special offers; If you can not send all cash now, we will allow extras providing you send cash before shipment.

**TERMS:** All cash before shipment, otherwise we send c.o.d for balance due. 20% with order will hold for later delivery.

**ALSO FOR EARLY ORDERS:** Our Special Advertising Discount Coupon. This we have in the form of a rebate coupon. It specifies only Hornberger originations; is good for one year or as dated and signed by us; and we will use them to reward all early orders that we receive on or before April 1, 1934. We will mail a \$1.00 coupon on all orders of \$5.00 up to \$10.00; \$2.00 coupon on all orders of \$10.00 up to \$20.00; \$3.00 coupon on all orders of \$20.00 up to \$30.00 and a \$4.00 coupon on all orders of \$30.00 and over. Orders must be dated prior to April 1. These coupons are in addition to the above extras. They do not apply to "Special Collections", or "Special Mixtures" and not to 1000 Rate Prices.

**ABBREVIATIONS:** (Ex.) for exhibition variety. (Com.) for commercial, (Dec.) for decorative, and the figures as 80-85 etc. will indicate the approximate days required to flower, although this may vary greatly with soils, locations, and how early or late planted, also fumigating and dipping will retard the blooming somewhat.

**PRIZE AWARDS—FREE OFFERS;** Are net, as listed, in Retail List, discounts do not apply.



SPIKES OF HORNBERGER'S "AFLAME"

Grown by Harry F. Page of Cranford, N. J. for the N. Y. Life Ins. Co.'s  
Flower Show, August 17-18, 1931

Here is a massive basket, with just (5) spikes of Aflame, the largest and tallest in this New York show. Compare the size and length of these spikes by making comparisons with the surrounding furniture and ceiling of this high room, in one of New York City's largest office buildings. See letters of comment, page 2.

## DESCRIPTIVE RETAIL PRICE LIST

Names of Varieties Printed in Capital Letters as (AFLAME) Indicate Our Best Varieties

AT THE FOLLOWING RETAIL PREPAID PRICES: We list per 1 and per 10 bulbs in three (3) sizes; Large size, Medium size, and Small size. We sell 1 or 2 bulbs at the 10 rate price when each item is 10c or more; no item sold for less than 10c. NO ORDER under \$1.00 is prepaid. We prepay only from \$1.00 up. To find the 100 prepaid price, multiply the 10 prices, below, by 9; this gives you the 100 price. We sell 25 bulbs at the 100 rate. To figure the 1000 rate from the following prepaid retail prices, multiply the 100 rate by 8. We sell 250 at the 1000 rate when figured in this manner. BULBLETS are listed below in lots of 1 to 1000. For bulblets listed in 1000 lots, we have them available in generous size packages priced at 10c and 25c per package. BULBLETS listed per 10 to 100 we will supply in packages priced at 25c or 50c each and generous count for the variety.

**AFLAME** (FCH) (Com. Exhib. 80-85) The giant in the Prim-Grand class. Massive plant, dark green foliage, tall straight spikes. Under favorable conditions, Aflame will grow six feet tall and have florets six inches or more. Its giant, well-placed bloom on a tall, strong yet willowy stem must be seen to be appreciated. Its coloring is considered wonderful; a rich deep begonia rose, shading to orange flame at edge of petals. The reverse side of petals are as beautiful as the face of the flower. A National prize winner of medals and awards. (10 L.) \$.50, (10 M.) \$.30, (10 S.) \$.15, 1000 Bts. \$1.00. Easy to propagate.

**AIDA** (Pfitzer) (Com. Dec. 70) One of the best deep blue shades. Large, well placed flowers with reddish lilac blotch; five open; early. A very choice variety; easy to propagate. 10 L. \$.50, 10 M. \$.30, 10 S. \$.15, 1000 Bts. \$1.50.

**ALBATROSS** (Pfitzer) (Ex. Dec. 80-25) Large pure white, 6-8 open; very tall; bloom are the so called Lily type, somewhat funnel shaped, a tendency to face upward. A good variety and easy to propagate. 10 L. \$1.00, 10 M. \$.50, 10 S. \$.35, 100 Bts. \$.60.

**ALIGHT** (Hornberger) Prim Grand (Exhib. Com. 80-85) A Sport of Aflame, a wonderful new variety, a shade lighter in color than Aflame, and with its large white throat blotch makes it a very distinctive and charming variety; easy to propagate. As this is a color Sport of Aflame, it has all the habits and qualities of its parent, except the difference in coloring. 1 L. \$5.00, 1 M. \$3.00, 1 S. \$1.25, 3 Bts. \$1.00.

**ALLENWOOD** (Hornberger) (Ex. Dec. 85-90) Tall spike, deep pink, 6-8 open, sometimes stems crook. A little deeper in color than "Phipps". 1 L. \$1.00, 1 M. \$.50, 1 S. \$.25, 10 Bts. \$.50.

**Angels Dream** (Ellis) (Ex. Dec.) Very beautiful medium to light pink. With us stems crook badly; easy to propagate. 10 L. \$.50, 10 M. \$.30, 10 S. \$.15, 1000 Bts. \$1.00.

**ANNA EBERIUS** (Diener) (Com. Dec. 85-90) Velvety deep purple, a very popular variety in good demand; easy to propagate. 10 L. \$.50, 10 M. \$.30, 10 S. \$.15, 1000 Bts. \$.75.

**APRICOT GLOW** (Palmer) (Com. Dec. 70-80) Prim Grand; good apricot; tall, strong spikes; fast propagator. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**ARISTOCRAT** (Bill) (Com. Dec. 80-85) Prim Grand. Pale saffron, flaked orange; a lovely color; 5-6 open; easy to propagate. 10 L. \$.50, 10 M. \$.30, 10 S. \$.15, 1000 Bts. \$.75.

**AVE MARIA** (Pfitzer) (Ex. Com. 75-80) A good light blue, purplish blotch; 7-8 open; very good propagator; an extra good variety. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.50.**

**BAGDAD** (Palmer) (Ex. Dec. 85-90) A smoky rose, a wonderful grower and massive plant with tall straight stems that carry massive large flowers; 5-6 open very large florets often six inches. **2 L. \$.40, 2 M. \$.25, 2 S. \$.20, 5 Bts. \$.25.**

**BEN HUR** (Hornberger) (Com. Dec.) Medium height, stocky plant, heavy spike; 4-6 open large flowers, a very fine color, deep, rich purple; easy propagator. **10 L. \$.50, 10 M. \$.30, 10 S. \$.15, 1000 Bts. \$1.00.**

**BERTY SNOW** (Mair) (Ex. Com. 75-80) A very nice lavender, 7-8 open large flowers on a good spike; good propagator. Very good but not equal to Minuet. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.**

**BETTY NUTHALL** (Salbach) (Ex. Com. 100-110) Coral pink, pale yellow throat, markings shading to orange, general color effect salmon orange. Very tall, straight spikes, a massive, heavy plant, rapid propagator. Large well-placed flowers; a good keeper and shipper. One of the best commercial cut flowers on the market today. A real money maker. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.**

**BILL SOWDEN** (Fallu) (Ex. Dec. 80-85) We were one of the very first to grow this variety as Fallu sent us some of his stock before he introduced the variety. Very large, massive deep blood-red, 6-7 inch blooms with 5-6 open. A sensational new variety; bulblets somewhat hard to germinate. This variety originated in the garden of E. J. Fallu, Adelaide, So. Australia. **1 L. \$.16, 2 M. \$.20, 3 S. \$.20, 100 Bts. \$1.20.**

**BLEEDING HEART** (Brown) (Ex. Com. 82-85) White, suffused pale pink, with large red distinctive blotch; 8-10 open. Strong grower, fast propagator. Outstanding, a new glorified Pendleton. Extra choice. **1 L. \$.16, 2 M. \$.24, 3 S. \$.20, 100 Bts. \$.50.**

**BLUE DANUBE** (Pfitzer) (Ex. Com. 80-85) Beautiful light blue; long, straight spike; 6-8 large florets open; good placement; large flowers; clear color; bulblets hard to germinate. **1 L. \$.35, 1 M. \$.25, 1 S. \$.15, 10 Bts. \$.25.**

**Blue Torch** (Hornberger) (Com. Dec. 70) Tall pale violet; 6-7 open; in good demand; moderate propagator. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.**

**Blue Triumphator** (Pfitzer) (Ex. Dec.) Tall spike, large flowers. Has been called a super Glad by some growers. A very slow propagator. We have not found this a satisfactory grower and to get real exhibition blooms you will need very good seed bed conditions. **1 L. \$.50, 1 M. \$.35, 2 S. \$.35, 10 Bts. \$.30.**

**Bobby Douglas** (Rademacher) Large white Australian variety; very good. May make first class. **1 L. \$.20, 2 M. \$.20, 3 S. \$.20, 10 Bts. \$.20.**

**BROWN WINGS** (Hornberger) (Dec. 80-85) Prim Grand, moderate height; a color novelty, general color effect brown and tan; a favorite with people who like odd shades. **2 L. \$.15, 3 M. \$.15, 4 S. \$.15, 100 Bts. \$.40.**

**Buffalo** (Hornberger) Tall, deep red, 8-10 open large flowers, good stem, poor propagator. **1 L. \$2.00, 1 M. \$1.00, 1 S. \$.50.**

**CANBERRA** (Errey) (Ex. Com. 90-95) Tall, strong growing plant, long spikes, a good yellow, buds have greenish cast but color is good when bloom are open. **10 L. \$.75, 10 M. \$.40, 10 S. \$.25, 100 Bts. \$.30.**

**Capt. Boynton** (Boynton) (Com. 80-85) Light lavender; tall, large flowers; good commercial; good propagator. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.**

**Cara Mia** (Miller) Prim Grand (Com. Dec.) Tall spike; shrimp pink. An extra early variety; good for early bloom. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.**

**CARDINAL PRINCE** (Kundred) (Ex. Com. 75-80) Strong grower, clear cardinal red; 4-6 open. Good red. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.**

**Carolus Clusius** (Velthuys) (Com. Dec. 75-80) A good commercial pink; not outstanding here, but a good average variety. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.**

**CATHERINE COLEMAN** (Joe Coleman) (Ex. Com. 90-95) A clear salmon rose; 7-8 large flowers open; good placement; tall strong plant. The large, heavy bloom sometimes bend over the spikes; extra good. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.**

**CHARLOTTE PFITZER** (Pfitzer) (Ex. Com.) Very tall spike, light pink; 8-10 large flowers open. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.50.**

**CHAS. DICKENS** (Pfitzer) (Ex. Com. Dec.) Early; very tall purple-violet; strong grower; vigorous plant; good propagator. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.**

**CHAMPLAIN** (Palmer) A new light blue. We have not grown this long enough to pass judgment, but we give it a high rating on the strength of the claims of the introducer. This looks to me like an improved "Heavenly Blue"; good grower, good color. **1 L. \$4.00, 1 M. \$3.00, 1 S. \$2.00, 1 Bt. \$1.00.**

**COMMANDER KOEHL** (Pfitzer) (Ex. Com. 80-85) A large, clear, dark blood-red; tall spike, strong plant; good propagator; flowers very large; a real outstanding new red. **10 L. \$1.00, 10 M. \$.50, 10 S. \$.25, 100 Bts. \$.60.**

**Coronado** (Briggs) Heavily ruffled white with purple lace-like throat. This variety has been highly advertised but has never given us satisfactory results in this section; slow propagator. **10 L. \$1.00, 10 M. \$.30, 10 S. \$.16, 100 Bts. \$.60.**

**Coryphee** (Pfitzer) (Ex. Dec. 75-80) Very tall, large flowered shell-pink. I think one of the most beautiful shades of pink found in Glads. Some years, when moisture, weather and soil are just right, we have produced most wonderful tall, straight spikes that would rank any place as super Glads, but at other times, stems crook badly in most parts of the east. See the photograph we print elsewhere in Catalog. The season of 1933 was very dry and Coryphee produced very many crooked spikes. We can not give it the high rating it should merit because of this fault. **10 L. \$.75, 10 M. \$.40, 10 S. \$.25, 1000 Bts. \$1.60.**

**Crinkles** (Kundred) (Com. Dec. 85-90) Very popular plant; medium height; color lovely rose; very much crinkled and ruffled. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.**

**DAMASCUS** (Stevens) (Com. Ex.) Deep rose-purple, overcast blue, red blotch; a very popular smoky. **10 L. \$1.00, 10 M. \$.50, 10 S. \$.30, 100 Bts. \$.40.**

**DR. F. E. BENNETT** (Diener) (Ex. Com. 90-95) Fiery orange-scarlet, white lines in throat; 7-8 large florets open; a very popular red. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.**

**DR. MOODY** (Kinyon) (Ex. Com. 85-90) Early, light lavender; good spike; many open; strong grower; fast propagator. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.**

**DR. NELSON SHOOK** (Kundred) (Ex. Com. 80) Tyrian rose, ruffled; strong grower; tall, heavy spike; 6-8 open; extra good. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.**



CORYPHEE: PRODUCES THE FIGURE 8

This is a natural formation we discovered in 1933

### **Flat Bulbs vs. Conical Bulbs**

This subject, like most other things, has been much misrepresented. Some advertisers say "Not a flat bulb in a carload". Such statements are made for the psychological effect only, and mean but little. "Facts are stubborn things," and it is a fact that many varieties seldom become very flat because it is their nature to produce deep bulbs; examples, America, Panama and others. Then on the other hand, many of our newer and finest varieties produce a very flat looking bulb, even when grown from a bulblet. Of course what the advertiser really means is that he is offering you young bulbs instead of old bulbs. As a rule, a large, young bulb is preferable to a large, old bulb, but "old bulbs" should not be designated as "flat bulbs," although they average more flat than young bulbs. We should not use the term "FLAT BULBS" at all in this connection; it is very misleading, in particular to that large (amateur) buying public. We should use the term "old bulb" or "young bulb," never flat bulbs. Old bulbs are not very difficult to distinguish from young stock by persons of even limited experience. We produce Young Bulbs.

**EARLY SUNRISE** (Velthuys) (Ex. Com. 65) Very early; tall, strong spike; good placement; a very fine commercial, only fault is the difficulty to germinate the large, hard shelled bulblets. I believe, if it did not have this fault, it would be one of the most popular varieties. 10 L. \$.50, 10 M. \$.30, 1000 Bts. \$1.00.

**E. I. FARRINGTON** (Rowe) (Com. Ex.) Good grower; color a soft yellow self, a very good yellow. 10 L. \$1.00, 10 M. \$.50, 10 S. \$.30, 100 Bts. \$.20.

**ELLA DAY** (Carpenter) (Com. Ex.) Plant of medium height; flowers extra large; bright, clear pink of good substance; good grower and propagator; a very nice pink. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 100 Bts. \$.15.

**EMILE AUBURN** (Lemoine) (Ex. Dec. 85-90) Coppery bronze; large red blotch; 8-12 bloom open; tall spike; large flowers; good placement, and good propagator. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**FANNY CROSBY** (Carpenter) (Ex. Com.) Large, creamy white, yellow throat; good spike; large flowers; a worthwhile variety. 1 L. \$.30, 2 M. \$.30, 3 S. \$.30, 10 Bts. \$.30.

**FLUFFY RUFFLES** (Brown) (Ex. Com.) Very tall P. G. intensely ruffled and lacinated, distinctly different, very tall spike, many open. Very interesting and fine for baskets, vases, etc. most decorative. 1 L. \$.50, 1 M. \$.30, 1 S. \$.20, 100 bts. \$.50.

**FIELD MARSHALL** (Mair) (Ex. Dec.) Large, tall plant; large flowers, many open; color brownish red in the smoky class. 1 L. \$.50, 1 M. \$.25, 2 S. \$.25, 10 Bts. \$.25.

**FRANK McCOY** (Briggs) (Ex. Com.) Tall, large pink; good grower; many open. 10 L. \$.80, 10 M. \$.50, 10 S. \$.30, 100 Bts. \$.15.

**GERTRUDE PFITZER** (Pfitzer) (Dec. 70-75) Light blue with violet center; tall, strong grower; large flowers; a nice variety. 10 L. \$1.20, 10 M. \$.80, 10 S. \$.50. 100 Bts. \$.50.

**GIANT NYMPH** (J. Coleman) (Ex. Com. 80-85) Tall, large, light salmon-rose pink; one of our best commercial pinks; very strong grower. We have seen this variety produce fine bloom when others were a failure. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.50.

**GLADDIE BOY** (Bill) Prim Grand (Com. Ex.) Early, Tall pink; very fine. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.

**GLORIANA** (Betscher) (Ex. Com. 85-90) Extra tall, golden salmon, yellow throat; sometimes a few spikes crook in dry weather. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.

**Glory of U. S. A.** (Carey) Large orange-salmon. 10 L. \$.80, 10 M. \$.50, 10 S. \$.30, 100 Bts. \$.25.

**GOLDEN DREAM** (Groff) (Ex. Com. 90-95) Tall, strong grower; good propagator; long stems; fine placement; 7-10 open; a very clear, deep yellow. Do not cut buds tight. To be at its best, cut when 1 or 2 bloom have opened. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**Golden Frills** (Kundred) Prim Grand (Dec. 66) Heavy ruffled deep yellow with small red feather in throat; not very tall or large, but flowers are wonderful for floral work. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.

**GOLDEN MEASURE** (Kelway) (Ex. Com. 85-90) Very tall, deep yellow; when first introduced was a sensational variety. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**HAMBURG PINK** (Hornberger) (Com. Ex. 65-70) Large, bright pink; 6-8 open; good grower and propagator. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**HEAVENLY BLUE** (Pfitzer) (Ex. Com. 80-85) Pale, sky blue, a few darker lines in throat; 8-10 open; good propagator; with us a fairly good grower. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**Helen Jacobs** (Salbach) (Dec.) Tall Salmon pink; 6-8 open; strong grower. 10 L. \$1.60, 10 M. \$1.20, 10 S. \$.80, 100 Bts. \$.30.

**HINEMOA** (Doney) (Ex. Dec.) Deep, smoky rose with darker flaking; very bizarre and striking appearance; tall spike; large flowers; 6-8 open. Slow propagator. 10 L. \$2.50, 10 M. \$1.50.

**IMPRESSARIO** (Kundred) (Dec.) Very large, fine lacinated yellow; one of the best. 1 L. \$.50, 1 M. \$.25, 2 S. \$.25, 10 Bts. \$.50.

**Ivanhoe** (Hornberger) (Dec.) Very large, bright salmon-pink; short spike; very lovely coloring; good keeper; nice for floral work. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**JOHN T. PIRIE** (Kunderd) (Dec. 85-90) Tall spike; mahogany brown with darker throat, bordered yellow. Very odd coloring. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 100 Bts. \$.15.

**JESSIE** (Mair) (Com. Ex.) Tall, deep rose-pink; very good; good grower. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 100 Bts. \$.15.

**JANE ADDAMS** (Decorah) (Dec. 80-85) A large lavender; 4-5 open; medium height. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**JOERG'S WHITE** (Joerg) (Ex. Com.) Good grower and germinator but only moderate propagator; very large, well placed flowers; short spikes. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.80.

**JONKHEER VAN TETS** (Pfitzer) (Ex. Com. 90-95) Large, pure white; 7-8 open; strong grower; slow propagator. 10 L. \$2.00, 10 M. \$1.20, 10 S. \$.90, 10 Bts. \$.15.

**JUBILEE** (Kemp) (Dec. 80-85) Large, rose lavender; very light texture. 10 L. \$1.20, 10 M. \$.60, 10 S. \$.30, 100 Bts. \$.60.

**KING ARTHUR** (Arenius) (Dec.) A very large ruffled lavender; in a good growing environment, produces wonderful blooms; fair propagator. 1 L. \$.60, 1 M. \$.40, 1 S. \$.25, 5 Bts. \$.25.

**LAIDLEY** (Errey) (Ex. Com.) Flaked and striped pink, crimson blotch in throat; 6-8 open; a very fine thing in this color. 10 L. \$1.20, 10 M. \$.80, 10 S. \$.40, 100 Bts. \$.50.

**LA PALOMA** (Dusinberrie) Prim Grand (Com. Dec. 75-80) Large, bright orange, quite a large percent of crooked spikes here, but color and substance is very good; 4-6 open; good propagator. 10 L. \$.90, 10 M. \$.50, 10 S. \$.30, 1000 Bts. \$2.00.

**LAVENDER BRIDE** (Bride) (Dec. 70-80) Large, smoky lavender; good propagator; stems seem inclined to be weak. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.

**LOYALTY** (Austin) (Ex. Com. 90-95) A good, clear yellow, not as deep a color as Golden Dream but flowers are larger; one of the best yellows. 10 L. \$.70, 10 M. \$.40, 10 S. \$.20, 100 Bts. \$.20.

**Lily of Gold** (Kunderd) (Dec.) Rich, canary yellow; lower petals shade deeper; not very tall; coloring is very distinctive. 10 L. \$1.00, 10 M. \$.50, 10 S. \$.30, 100 Bts. \$.40.

**MAMMOTH WHITE** (Pfitzer) (Ex. Com.) Very large, pure white; tall spike; 5-6 open, often 6 inches across; wonderful for exhibition; fair propagator. 10 L. \$1.20, 10 M. \$.70, 10 S. \$.40, 100 Bts. \$.80.

**MARGARET GOODRICH** (Goodrich) (Ex. Com.) Good, tall, large white, large red throat blotch; good propagator. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.

**MARMORA** (Errey) (Ex. Com. 80-85) Sport of E. Auburn; a very tall, strong grower; 8-12 open; very large flowers; color slate grey with pale purple blotch; an outstanding exhibition variety; in heavy demand; good propagator. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**MARMORA SPORT** (Hornberger) This is a pale light grey sport of Marmora; very interesting to grow along with Marmora; color is distinctly different. 1 L. \$1.00, 1 M. \$.60, 1 S. \$.30, 5 Bts. \$.30.

**MAROLEE** (Carpenter) (Ex. Dec.) A large rose pink, yellow center, edged flame; a very unusual and striking color combination. 10 L. \$2.00, 10 M. \$1.00, 10 S. \$.60, 10 Bts. \$.25.

**MARY FREY** (Gelser) (Com. Dec. 75-80) Lavender pink; under good culture extra fine; good propagator. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**Mary Jane** (Kunderd) (Com. Dec. 80-85) Light, silvery lavender; medium height; fair propagator. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**MILKMAID** (Gilrey) Pure white; tall, large flowers; many open; sometimes flecked with pink. 10 L. \$1.00, 10 M. \$.50, 10 S. \$.25, 100 Bts. \$.25.

**MINUET** (J. Coleman) (Ex. Com. 80-85) One of the best Glads ever listed; vigorous strong plant; heavy long spike; a clear pinkish lavender; very large flowers; heavy substance; good placement; 6-8 open; a keeper and shipper. I think it the best commercial we list. See letter on another page telling what results one man had from 300 #5 that he purchased from us last spring. Minuet is a good grower and produces loads of bulblets but unless you use proper precautions they may not germinate well. We get as good germination as from any other variety. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.

**Miss Des Moines** (Decorah) (Ex. Com.) A nice tall lavender; a desirable variety, but not very good grower here; slow propagator. 10 L. \$1.20, 10 M. \$.60, 10 S. \$.40, 100 Bts. \$.60.

**MISS NEW YORK** (Hornberger) (Com. Dec. 85-90) Strong plant; 5-6 open; good substance; crisp form; color doree-begonia rose; a very lovely color. It takes very good soil to bring out the quality of this variety. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.

**MME. MOUNET SULLEY** (Lemoine) (Com. Ex. 80-85) A tall, creamy white with large red blotch in throat; much prized by connoisseurs. A lovely and charming contrast of color; somewhat slow propagator but good grower. 10 L. \$.75, 10 M. \$.50, 10 S. \$.35, 100 Bts. \$.40.

**MOROCCO** (Pfitzer) (Ex.) One of the extra dark reds, about as dark as Persia but larger, taller and better; 6-8 open. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**MOTHER MACHREE** (Stevens) (Ex. Dec. 95-100) A soft, smoky lavender, combined with orange and gray; a very tall, strong plant; a long spike and good placement; 6-8 open large flowers; good grower; good propagator. 10 L. \$1.00, 10 M. \$.60, 10 S. \$.35, 100 Bts. \$.20.

**MRS. ANNA PFITZER** (Pfitzer) (Ex. Com. 85-90) Tall, creamy white; buds greenish in color; long spike; 8-10 or more open; good grower but very slow propagator. 10 L. \$3.20, 10 M. \$2.40, 10 S. \$1.60, 100 Bts. \$2.00.

**MRS. CATHERINE EDWARDS** (Hornberger) (Ex. Com. 70) Extra tall stems; strong plant; an early white; color a creamy white but not as deep as Mrs. A. Pfitzer; 8-10 or more open; flowers very large; flowers have been reported nearly 7 inches across; placement not always good but this is a common fault among glads. Some growers have reported poor results but we grow so extensively and use so many kinds of soil, and have had such good results that we give this a first class rating.

**MRS. F. C. HORNBERGER** (Hornberger) (Ex. Com. 100-105) After growing this variety many years and producing millions of bulbs, under all kinds of soil and climatic conditions, we still maintain this to be the greatest commercial white that has ever been introduced at any time or place. Has been included in the National Symposium for the last four years as one of the best 50 by national vote. Read some of the letters from customers that we print elsewhere. A tall, strong growing pure white; Europa x Peace parentage; large pure white, slightly frilled bloom; one of our most rapid propagators; under good growing conditions have had a large percentage of #1-2-3 from bulblets and many bulblets throw a spike with 20-25 buds; large bulbs sometimes have 30 buds; tall spike of large flowers, 6-8 open, sometimes more; very good keeper, a well known Buffalo florist says the best keeper they ever used. Its record of show winnings is too long to print here, our old Catalogs have contained these records. It has won many medals and championship vases including the **VAUGHAN'S BRONZE MEDAL** at New York in 1931 against all competition. Brenner, wholesaler of New York and Newark, says he will use this in preference to all other whites. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**MRS. F. C. PETERS** (Fischer) (Ex. Com. 100-105) Tall, fine lavender; a very outstanding variety; good grower; good propagator; one of the best commercial lavenders. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**MRS. JOHN WALSH** (Diener) (Ex. Dec.) A very tall, strong plant; needs good growing conditions for best results; tall spike; large ruffled flowers; light rose pink with large dark red blotch in throat. 10 L. \$.50; 10 M. \$.30; 10 S. \$.20; 1000 Bts. \$.75.

**MRS. LEON DOUGLASS** (Diener) (Ex. Com. 95-100) A salmon rose striped flame; very tall and very large flowers; as grown in the north I do not think the color very outstanding, but as we have grown it in Florida, I thought the color very fine, but so tall, so large, showy and imposing, that this has always been one of the "best sellers"; 6 or more open; good grower and propagator; good commercial; good exhibition. 10 L. \$.50; 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**MRS. P. W. SISSON** (J. Coleman) (Ex. Com. 90-95) Some call this a strong grower; I do not, and it just barely passes being listed in first place; will not stand very dry or adverse conditions; needs good culture. Tall, creamy light pink; 6 or more open; fairly good propagator. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.

**MRS. RAY P. CHASE** (Dr. Miller) (Ex. Com.) Large, creamy white, light yellow throat; extra large flowers on good stem; fast propagator; good grower. 10 L. \$4.80, 10 M. \$3.00, 10 S. \$2.00, 10 Pts. \$.40.

**MRS. VAN KONYNENBURG** (Pfitzer) (Com. Dec. 75-80) A medium light blue; fair height; 5-6 open; blooms do not open very wide and open upward. 10 L. \$.50, 10 M. \$.30; 10 S. \$.20, 1000 Bts. \$.50.

**MR. W. H. PHIPPS** (Diener) (Ex. Com. 110) Has been called the wonder Glad; one of the best exhibition varieties in existence; has long held first place in most symposiums. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.



GLADIOLUS—MRS. F. C. HORNBERGER

CHAMPIONSHIP VASE Picture taken after the show, when some of the lower petals had dried. THIS VARIETY has been called the Perennial Prize Winner, also won VAUGHAN'S BRONZE MEDAL as the best white variety.

**MURIEL** (Pfitzer) (Ex. Com.) Large, violet blue, one of the older in the so called "blue" class but still very good. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.

**NEW GOLD** (Hornberger) (Com. Dec.) A very clear colored yellow; given special mention at Cornell Trial Grounds. 10 L. \$1.00, 10 M. \$.50, 10 S. \$.30, 1000 Bts. \$2.00.

**ORANGE QUEEN** (Pfitzer) Prim Grand (Ex. Com. 75-80) Tall, light orange; very good; 5-7 open; flowers on long stems; good commercial. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**ORANGE WONDER** (Kemp) (Ex. Com. 105-110) Dark orange; tall strong, vigorous plant. 10 L. \$.60, 10 M. \$.35, 10 S. \$.25, 1000 Bts. \$1.50.

**OUR SELECTION** (Australia) (Ex.) Very sturdy, strong plant; color salmon red flaked deeper, cerise and creamy blotch on lower petals; 8-10 sometimes 12 large bloom open. 10 L. \$1.00, 10 M. \$.50, 10 S. \$.20, 1000 Bts. \$1.80.

**Paul Pfitzer** (Pfitzer) (Com. Dec. 75-80) Reddish purple; moderate grower and propagator. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**PAULINE KUNDERD** (Kunderd) (Ex. Dec. 85-90) Light rose pink, creamy throat; 6-8 large flowers open; tall spike; slow propagator. 10 L. \$.75, 10 M. \$.40, 10 S. \$.30, 100 Bts. \$.80.

**Pearl of California** (Kingsley) (Ex. Com. 85-90) La France pink; 6-8 large bloom open; a most lovely pink; we think in the right locations this would rate first place. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.30.

**PELEGRINA** (Pfitzer) (Ex. Dec.) Early, large, deep dark blue; 6-8 open; a high class variety. 1 L. \$.50, 1 M. \$.35, 1 S. \$.25, 5 Bts. \$.25.

**PFITZER'S TRIUMPH** (Pfitzer) (Com. Ex. 85-90) Bright orange salmon red with dark red blotch; immense wide open flowers; stems not extra strong; for best results cut as buds begin to open. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**PICARDY** (Palmer) (Ex. Com. 90) We think this one of the finest glads in the world and by far the best variety Palmer has so far named. A clear, shrimp pink of immense size; 7-10 open; often 6 inches or more across; a fast propagator. Seems to do well under even adverse conditions. 10 L. \$2.00, 10 M. \$1.20, 10 S. \$1.00, 100 Bts. \$3.00.

**PINK CLOUD** (Kunderd) (Com. Dec.) A very intensely ruffled pink; needs good soil conditions to bring out fine qualities. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.

**PINK SHOW** (Hornberger) (Ex.) Extra tall, strong grower but slow propagator; very long stems; color light pink with yellow markings; moderate sized flowers; very good placement; 10 to 14 open. 10 L. \$3.00, 10 M. \$2.00, 10 S. \$1.00, 10 Bts. \$.25.

**PRIDE OF WANAKAH** (Chuswell) (Ex. Com. 90-95) Tall plant; a lovely shade of rich rose; good propagator and grower. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**PRINCE OF INDIA** (Childs) (Dec.) An odd smoky, so unusual and out of the ordinary as to be in great demand. 10 L. \$.80, 10 M. \$.40, 10 S. \$.30, 1000 Bts. \$1.25.

**PURPLE GLORY** (Kunderd) (Ex. Com. 85-90) An old and well known exhibition variety; needs good soil to bring out its real merits. Deep velvety maroon flowers, heavily ruffled; good grower; hard to germinate the bulblets. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**PURPLE QUEEN** (Kunderd) (Dec. 75-80) Good violet-purple; 5-6 open; large, well placed ruffled flowers. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.75.

**PYTHIA** (Kunderd) (Com. Ex. 85-90) Very large, deep red; very showy; good grower and propagator. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75. XX.

**QUEEN LOUISE** (Pfitzer) (Ex. Com. 80-85) A tall, pure white; a very fine white. 1 L. \$.50, 1 M. \$.30, 1 S. \$.20, 5 Bts. \$.25.

**QUEEN MARY** (Mair) (Ex. Com. Dec. 90-95) Tall, strong plant; long spike set with numerous large buff pink flowers; slow propagator. 1L. \$.75, 1 M. \$.50, 1 S. \$.30, 3 Bts. \$.20.

**RADIANT QUEEN** (Hornberger) (Com. Dec. 60-65) Extra early; medium height; an improved Orange Queen; color a rich orange saffron; very popular. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**RAMASSES** (Stevens) (Ex. Dec. 80) A very tall plant; purple flowers of immense size; 5-6 or more large florets open; has wavy and ruffled edges. 10 L. \$3.20, 10 M. \$2.40, 10 S. \$1.60, 100 Bts. \$2.00. XXX.

**RED LORY** (Errey) (Ex. 95-100) A very strong grower with tall spike; 10-12 or more open; a carmine rose with purplish red blotches. 10 L. \$2.00, 10 M. \$1.60, 10 S. \$1.20, 100 Bts. \$1.00.

**RED PHIPPS** (Briggs) (Ex. Dec.) A good light red; good placement and good grower. 10 L. \$2.00, 10 M. \$1.20, 10 S. \$.80, 100 Bts. \$2.00.

**RODERICK DHU** (Stephen) (Ex. Dec.) A pink with "Pendleton" throat blotch; good grower; good propagator. 10 L. \$.80, 10 M. \$.50, 10 S. \$.30, 1000 Bts. \$1.75.

**ROMANCE** (Kunderd) (Ex. Com. 70-75) Salmon rose with a wide border of blue along the edges; 6-8 open. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**ROSE MARIE PFITZER** (Pfitzer) (Ex. Com.) White tinted pink, a peaches and cream effect; 8 or more open; very popular. 1L. \$2.50, 1 M. \$1.75, 1 S. \$1.25, 1 Bt. \$.35.

**Rose Mist** (Fischer) Prim Grand (Ex. Dec. 80-85) An old rose with buff shading, at some distance the color resembles Aflame; good grower. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**ROSE MULBERRY** (Austin) (Com. Dec.) A good smoky somewhat like Rose Ash. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**ROYAL LAVENDER** (Schleider) (Com. 70-75) Deep lavender; good grower and propagator; needs very good soil conditions for best results. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.25.

**RUFFLED GOLD** (Goodrich) (Ex. Com.) Very good ruffled yellow; very fine; when given good growing conditions good grower. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.

**SALBACH'S PINK** (Salbach) (Com.) Large geranium pink; long spike; 6 or more large flowers open; strong grower. 10 L. \$1.00, 10 M. \$.50, 10 S. \$.35, 1000 Bts. \$3.00.

**SCHUBERT** (Pfitzer) (Com. Dec.) Very good cream color with yellow blotch. 10 L. \$5.00, 10 M. \$2.80, 10 S. \$2.00, 100 Bts. \$3.00.

**SCHWABEN GIRL** (Pfitzer) (Com. Dec.) Early, large pure pink; 7-8 open; very fine when well grown. 10 L. \$2.40, 10 M. \$1.60, 10 S. \$1.00, 100 Bts. \$1.00.

**SEGORITA** (Salbach) (Ex. Dec. 90) Large, wide open orange, red pencilings; medium height; good propagator; similar in color to La Paloma. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.

**Senorita** (Langlois) (Dec.) Novelty, deep orange shading to dark brown; slow propagator. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.

**Solveig** (Decorah) (Ex.) A tall ruffled white, 5-7, open, a very fine new variety (Where it can be grown successfully). We have grown it two years, and so far it has been most unsatisfactory, a poor propagator, we offer it with this explanation of our experience. 1 Large bulb, \$20.00, 1 Medium Bulb, \$14.00, 1 Small bulb, \$10.00, 1 Bulblet, \$1.00.

**Spirit of St. Louis** (Muller) (Com. 80-85) Color orange saffron; 6 or more open; some growers claim this is a tall variety, others call it a super Glad; we have found it just a fair average variety of medium height. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**Star of the Sea** (Ellis) Tall, peach red. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 100 Bts. \$.20.

**Sweet Rose** (Kunderd) (Com. Dec.) A very good rose color; medium height; fair propagator. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**THOMAS A. EDISON** (Kunderd) (Dec. 90) Heavily ruffled, deep velvety red; good grower; medium height. 10 L. \$2.00, 10 M. \$1.20, 10 S. \$.80, 100 Bts. \$1.00. XXX.

**TREVONIAN** (Hornberger) (Ex. Com. 80-85) A very large, outstanding new lavender rose; very fine exhibition and commercial. We have had fine reports on this variety. Strong grower; good propagator. 1 L. \$3.00, 1 M. \$2.00, 1 S. \$1.00, 10 Bts. \$.50.

**TRIUMPHATOR** (Krelage 1922) (Com. Ex.) Tall early, orange red; large well placed bloom; 6-8 open; very good but it is a slow propagator. 10 L. \$2.00, 10 M. \$1.00, 10 Bts. \$.30.

**TOBERSUN** (Austin) (Ex. Com. 105-110) Large, clear yellow; tall; 6-8 open; strong grower; fair propagator. 10 L. \$1.00, 10 M. \$.70, 10 S. \$.40, 100 Bts. \$.25.

**VEILCHENBLAU** (Pfitzer) (Ex. Com. 90-95) Large, dark blue; a little above medium height; a very popular dark blue; good grower; fair propagator. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**WASAGA** (Palmer) (Dec. 90-95) Prim Grand; a strong growing buff; flowers somewhat ruffled; 4-5 open. 1 L. \$1.60, 1 M. \$.80, 1 S. \$.50, 2 Bts. \$.25.

**White Star** (Hornberger) (Ex. Dec. 110) Very tall, late white; large flowers; 8-10 or even 12 open but about 10% to 15% open of bloom come opposite flowered; a very showy white where you let it open before cutting. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**WHITE ORCHID** (Bill) (Com. Ex.) Early, tall ruffled Prim. Grand. 10 L. \$1.00, 10 M. \$.50, 10 S. \$.25, 100 Bts. \$.20.

**White Premier** (Bill) (Com. Dec.) A very good, strong growing white variety. 10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$.75.

**WILLIAM KENT** (Diener) (Ex. Dec. 115) Very late intensely ruffled creamy buff with a pink suffusion, a color difficult to describe but very beautiful, when well grown a wonderful variety; give good soil; it will reward you; fair propagator. 10 L. \$1.00, 10 M. \$.50, 10 S. \$.25, 1000 Bts. \$1.00.

**YVONNE** (Krelage) (Ex. Com. 75-80) Blush white, cerise spot in throat; 6-8 very large open flowers on a strong, tall plant; strong grower; fast propagator. There may be a few crooked stems under dry conditions. **10 L. \$.50, 10 M. \$.30, 10 S. \$.20, 1000 Bts. \$1.00.**

**ZILLAH** (W. H. Parkman) (Com. Ex.) Tall, massive plant; extra dark green foliage, straight, tall spike; big flower head; 6-8 massive flowers open; color is a soft, warm yellow; florets are well ruffled; but I will let you hear what other growers have to say about this variety, see letters below. **1 L. \$2.00, 1 M. \$1.25, 1 S. \$.75, 10 Bts. \$1.50.**

Here is what Prof. A. M. S. Pridham, of Cornell, has to say about "Zillah"—

"Parkman's Zillah is a *marked advance* in the yellow group. It is of Primulinus Grandiflorus type with large ruffled florets of ideal form, and ideal spike, with a marked tendency to early flowering thrown in for good measure. The variety has ample substance in the floret, too." —PRIDHAM.

### **From Howard Uhrig: Gladiolus Grower**

310 Church St., Chillicothe, Ohio, October 27, 1933.

Dear Sir:—

Under separate cover I am mailing a photograph of "ZILLAH" the new Yellow Wonder Glad. The picture was taken of a spike grown from a BULBLET.

**ZILLAH**—The Yellow Wonder Glad. A yellow gladiolus that is really YELLOW. A healthy grower with an ideal spike that has from six to eight massive ruffled yellow florets open with plenty of substance.

I found that what Prof. Pridham of Cornell said about Zillah was not too strong a statement. In fact, it could have been just a little bit stronger.

We experienced another terrible drought this past summer, just when the glads should have been shooting their spikes. But in spite of this dry spell, Zillah shot a spike 48 inches in length with six florets open.

Upon digging my "Zillah" I find it is a good propagator. From the bulblets planted, I dug No. 2 and No. 3 size bulbs with nice number of good sized bulblets.

I also find that Zillah stands the hot sun. The florets holding their original color; no fading out to white as is noticeable with so many of the yellow varieties.

Wishing you the best of luck with your introduction of Zillah as well as business in general. Yours very truly, **HOWARD UHRIG.**

Newark, N. J., November 16, 1933.

Dear Sir:—

We are glad to recommend Gladiolus "ZILLAH" to be a first class commercial variety. The color being a soft yellow holding its color until the last flowers are open.

We find it to be an excellent keeper, better than most varieties we have handled.

Could we grow but a few varieties, "ZILLAH" would be one of them; flowers of good substance on a spike growing four feet high even during the hot dry summer this year.

We find it to be a good forcing type. "GRAHAM FLORIST."

November 18, 1933.

Dear Sir:—

Your gladiolus Zillah has been my first choice when it was in season, having a pleasing, soft yellow color, a large number of first class florets on the stem together with its excellent keeping qualities. I consider it the Queen of Gladiolus of that color for display and keeping qualities and a very superior Gladiolus for florists' use. **JOHN J. LEWIS, Florist.**

Dear Sir:—

We like your yellow seedling "Zillah" very much. Its good clear color, amount of flowers open at one time and good keeping quality makes it by far the best Gladiolus of its color we have ever used. **WILLIAM SHEEHAN, Florist.**

# 1934 WHOLESALE PRICE LIST

**NOTE:** At date, due to the uncertainty as to the nature of our codes that will be established, we submit the following "Trade or Wholesale" prices. These are in line with other quotations at date. There will be a shortage of large sizes this year, and all indications point to a brisk demand for bulbs by spring due to the general business outlook, which is most encouraging. This list cancels all previous quotations, and is subject to such changes as our code, when established, may require.

**OUR BULBS** were grown on well drained, sandy soil where no bulbs were ever grown before. They are bright, clean and free of Thrips and disease and sold subject to your approval.

**SPECIAL QUOTATIONS:** We are always ready to meet the prices of other reliable growers, and will be glad to quote a net price on your list of requirements, in particular, sizes No. 3, No. 4, No. 5, No. 6 and bulblets per quart, peck or bushel. VARIETIES followed by this sign (\*) indicates large quantity available, and this sign (\*\*) extra large quantity available, and special prices on planting sizes.

**OUR SPECIAL WHOLESALE OFFER:** While these quotations are priced F.O.B. Hamburg, we have decided to PREPAY all of the following quotations at 1 to 100 rate until further notice. But not at the 1000 rate; see Special Quotations.

**TO ADJUST:** Any price changes that take place **after** we have this Catalog printed and before we can mail another list; if you find us so much higher than other reliable lists as to **cause you to hesitate**, make out your order in the regular way, tell us on what items we are high and (if we have the available stock) we will **increase** such items, or **increase other good items** to fully meet the other quotations. We will mail you a copy of your order. If not satisfactory, we guarantee to refund your money at once on request. We try to please our customers.

**SEE SPECIAL ADVERTISING COUPON OFFER** for additional extras.

**PRICES QUOTED ARE:** Per 100, per 10 and per 1. 25 or more at the 100 rate; 250 at the 1000 rate; to find the 1000 rate multiply the 100 rate by 8. 3 sold at the 10 rate (except varieties priced at \$1.00 or more), will be sold 1 at the 10 rate, no single item under 10c. Bulblets are heaped up measure, clean and sound; we sell pints and half pints at quart rates. Bulblets quoted per 10, 100 or 1000 will be sold in less quantity, but all items must be 25c or more.

**GRADING:** Is standard up to size and generous count. No substitution without permission.

## Wholesale List

Variety	Per	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	Bulblets
AFLAME **	100	\$ 2.20	\$ 1.80	\$ 1.40	\$ 1.20	\$ .90	\$ .70	Qt. \$ 2.50
AIDA *	100	2.40	2.00	1.60	1.40	1.00	.80	Qt. 3.00
ALBATROSS	100	7.00	5.00	4.00	3.00	2.40	1.60	1000 4.80
ALIGHT	10	45.00	35.00	25.00	18.00	11.00	7.00	10 3.00
ALLENWOOD	10	4.00	3.50	3.00	2.50	2.00	1.50	100 2.00
ANGELS DREAM	100	4.00	3.50	2.00	1.50	1.00	.75	1000 .75
ANNA EBERIUS					1.00	.70	.40	.25 Qt. 1.00

Variety	Per	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	Bulblets
APRICOT GLOW **	100	1.60	1.40	1.20	1.00	.80	.60	Qt. 1.00
ARISTOCRAT	100	2.00	1.50	1.00	.75	.50	.30	1000 .50
AVE MARIA	100	3.00	2.00	1.50	1.20	1.00	.80	1000 1.10
BAGDAD	10	2.50	2.00	1.60	1.20	1.00	.80	100 3.00
BEN HUR *	100			1.50	1.25	1.00	.50	1000 .75
BERTY SNOW	100	2.00	1.60	1.20	1.00	.80	.60	1000 .75
BETTY NUTHALL **	100	2.00	1.60	1.20	.80	.70	.60	Qt. 2.00
BILL SOWDEN	100	12.00	10.00	8.00	6.00	4.50	3.20	Qt. 15.00
BLEEDING HEART	100	12.00	10.00	8.00	6.00	4.50	3.20	Qt. 15.00
BLUE DANUBE	10	2.80	2.00	1.20	1.00	.80	.60	
BLUE TORCH	10		2.00	1.50	1.25	1.00	.75	1000 .75
BLUE TRIUMPHATOR	10	4.00	3.20	2.80	2.40	2.00	1.60	100 2.50
BOBBY DOUGLASS	10	.50	.40	.30				100 .30
BROWN WINGS	100	6.00	5.00	4.00	3.00	2.00	1.00	1000 2.00
BUFFALO	10	15.00	12.00	9.00	6.00	4.00		
CANBERRA	100	6.00	5.00	3.00	2.50	2.00	1.00	1000 1.50
CAPT. BOYNTON	100	1.80	1.60	1.30	1.00	.80	.60	Qt. 1.00
CARA MIA	100			2.00	1.50	1.00	.80	Qt. 2.00
CARDINAL PRINCE	100	2.00	1.40	1.20	1.00	.80	.60	Qt. 1.20
CAROLUS CLUSIUS	100	3.00	2.00	1.50	1.00	.80	.60	1000 .50
CATHERINE COLEMAN	100	2.00	1.40	1.20		.80	.60	Qt. 1.00
CHARLOTTE PFITZER	10	.40	.30	.20				1000 1.00
CHAS. DICKENS	100	1.80	1.50	1.25	1.00	.80	.60	Qt. 1.00
CHAMPLAIN	10	40.00	32.00	28.00	24.00	20.00	16.00	10 8.00
COMMANDER KOEHL	100	6.00	4.80	3.00	2.00	1.60	1.20	Qt. 10.00
CORONADO	100		3.25	2.25	1.40	1.10	.90	Qt. 3.40
CORYPHEE	100	4.25	3.25	2.00	1.20	1.00	.80	Qt. 3.50
CRINKLES	100	2.50	2.00	1.00	.75	.50	.40	Qt. 2.00
DAMASCUS	100	8.00	6.00	5.00	4.00	3.00	2.00	1000 3.00
DR. F. E. BENNETT *	100	2.00	1.50	1.00	.80	.60	.40	Qt. 1.00
DR. MOODY *	100	2.00	1.60	1.20	.80	.70	.60	Qt. 2.00
DR. N. SHOOK *	100	2.00	1.60	1.20	.80	.70	.60	Qt. 2.00
EARLY SUNRISE	100	3.00	2.00	1.50				1000 .75
E. I. FARRINGTON	100	5.00	4.00	3.20	2.80	2.00	1.40	1000 1.00
ELLA DAY	100	4.00	3.00	2.00	1.50	1.00	.75	1000 1.00
EMILE AUBURN	100	2.50	2.00	1.00	.75	.60	.40	Qt. 1.50
FANNY CROSBY	10	2.00	1.50	1.25	1.00	.75	.50	100 2.00
FLUFFY RUFFLES *	10	4.00	3.50	2.75	2.00	1.50	1.00	100 .50
FIELD MARSHAL	10	4.00	3.50	2.75	2.00	1.50	1.00	100 .50
FRANK MCCOY	100	5.25	4.00	2.80	2.20	1.60	1.20	1000 1.00
GERTRUDE PFITZER	100	7.00	6.00	4.30	3.80	2.40	2.00	1000 2.00
GIANT NYMPH *	100	1.50	1.25	1.00	.80	.60	.30	Qt. 1.00
GLADDIE BOY *	100	2.00	1.50	1.00	.80	.60	.40	1000 1.00
GLORIANA	100	2.00	1.60	1.20	1.00	.80	.60	Qt. 2.00
GLORY OF U. S. A.	100	5.00	4.00	3.00	2.40	1.40	1.00	Qt. 12.00
GOLDEN DREAM *	100	1.60	1.40	1.20	1.00	.80	.60	Qt. 1.00
GOLDEN FRILLS	100	2.00	1.50	1.00	.80	.60	.40	1000 .75
GOLDEN MEASURE	100	2.00	1.50	1.00	.80	.60	.40	Qt. 1.00
HAMBURG PINK	100	2.00	1.50	1.00	.80	.60	.40	Qt. 1.00
HEAVENLY BLUE *	100	3.50	2.50	2.00	1.50	1.00	.50	Qt. 2.00
HELEN JACOBS	100	12.00	10.00	8.00	6.00	4.50	3.20	Qt. 10.00
HINEMOA	10	2.25	2.00	1.20	1.00	.80	.60	100 1.00
IMPRESSARIO	10	4.00	3.50	2.00	1.50	1.00	.80	100 4.00
IVANHOE	100		3.00	2.00	1.00	.75	.50	Qt. 1.50
JOHN T. PIRIE	10	.40	.35	.25	.20	.15	.10	1000 1.00
JESSIE	10	.40	.35	.25	.20	.15	.10	1000 1.00
JANE ADDAMS	100	3.00	2.50	1.50	1.00	.75	.40	Qt. 2.00
JOERG'S WHITE	100	4.50	3.50	2.00	1.60	1.00	.75	1000 1.50
JONKHEER VAN TETS	10	2.00	1.75	1.20	1.00	.90	.70	10 1.25
JUBILEE	10	1.00	.80	.60	.40	.25	.15	100 .40
KING ARTHUR	10	6.00	4.50	3.50	3.00	2.50	2.00	100 5.00
LAIDLEY	10	1.20	1.00	.80	.60	.40	.30	100 .40
LA PALOMA	100	4.00	3.20	2.40	2.00	1.50	1.00	Qt. 3.00
LAVENDER BRIDE	100	4.00	3.50	2.50	2.00	1.50	1.00	Qt. 3.00
LOYALTY **	100	3.60	2.60	2.00	1.40	1.00	.80	Qt. 4.00
LILY OF GOLD	100	8.00	7.00	4.00	3.50	2.50	2.00	100 .25

Variety	Per	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	Bulblets
MAMMOTH WHITE .....	100	8.00	7.00	5.00	3.75	2.50	2.00	1000 4.00
MARGARET GOODRICH ..	100	2.00	1.50	1.00	.90	.70	.50	1000 .75
MARMORA ** .....	100	2.50	2.00	1.60	1.20	.80	.70	Qt. 2.50
MARMORA SPORT .....	10	8.00	7.00	5.00	4.00	2.50	2.00	100 3.00
MAROLEE .....	10	1.75	1.50	.90	.75	.50	.40	100 1.00
MARY FREY .....	100	2.50	2.00	1.50	1.00	.75	.60	Qt. 2.00
MARY JANE .....	100	2.40	2.00	1.60	1.20	.75	.40	Qt. 2.50
MILKMAID .....	10	1.00	.90	.75	.50	.40	.30	100 .25
MINUET * .....	100	2.50	2.00	1.60	1.20	1.00	.80	Qt. 3.00
MISS DES MOINES .....	10	1.00	.80	.50	.40	.30	.20	1000 5.00
MISS NEW YORK .....	100	3.00	2.50	2.00	1.50	1.00	.75	Qt. 3.00
MME. MOUNET SULLEY ..	100	5.00	4.00	3.00	2.50	2.00	1.50	1000 3.00
MOROCCO .....	100	3.00	2.20	1.80	1.20	1.00	.80	Qt. 3.50
MOTHER MACHREE * ..	100	6.00	4.80	3.60	3.20	2.40	1.60	Qt. 5.00
MRS. ANNA PFITZER ..	10	3.00	2.75	2.00	1.80	1.50	1.00	100 1.75
MRS. C. EDWARDS * ..	100	3.00	2.50	2.00	1.60	1.00	.60	Qt. 3.00
MRS. F.C. HORNBERGER ** ..	100	1.85	1.50	1.00	.80	.50	.30	Qt. 1.50
MRS. F. C. PETERS * ..	100	2.00	1.50	1.00	.80	.50	.30	Qt. 1.00
MRS. JOHN WALSH .....	100	4.00	3.00	2.00	1.50	1.00	.75	1000 .80
MRS. LEON DOUGLASS ** ..	100	1.60	1.40	1.20	1.00	.80	.60	Qt. 1.00
MRS. P. W. SISSON .....	100	2.00	1.50	1.25	1.00	.80	.60	1000 .75
MRS. R. P. CHASE * ..	10	4.00	3.50	2.50	2.00	1.50	1.00	100 2.00
MRS. VAN KONYNENBURG ..	100	2.00	1.60	1.20	.80	.70	.60	Qt. 2.00
MR. W. H. PHIPPS * ..	100	2.00	1.50	1.00	.75	.50	.30	Qt. 1.20
MURIEL .....	10	.40	.35	.25	.20	.15	.10	1000 .75
NEW GOLD .....	100	7.00	5.50	4.60	4.00	3.00	2.00	1000 3.00
ORANGE QUEEN .....	100	1.80	1.40	1.20	1.00	.80	.60	Qt. 1.50
ORANGE WONDER .....	100	3.00	2.00	1.50	1.00	.80	.60	Qt. 3.00
OUR SELECTION .....	100	4.80	4.00	3.00	2.00	1.50	1.00	1000 1.35
PAUL PFITZER .....	100	2.20	1.80	1.20	.90	.80	.70	Qt. 2.50
PAULINE KUNDERD .....	100	5.00	4.00	3.00	2.50	2.00	1.50	1000 5.00
PEARL OF CALIFORNIA ...	10	.40	.35	.25	.20	.15	.10	1000 1.00
PELEGRINA .....	10	3.60	3.20	2.80	2.40	2.00	1.80	100 4.00
PFITZER'S TRIUMPH .....	100	2.25	2.00	1.50	1.00	.80	.70	Qt. 2.50
PICARDY .....	100	20.00	16.00	12.00	10.00	8.00	7.00	1000 20.00
PINK CLOUD .....	100		3.00	2.50	1.50	1.00	.75	1000 .75
PINK SHOW .....	10	2.50	2.00	1.50	1.00	.75	.50	100 2.00
PRIDE OF WANAKAH ..	100	2.00	1.50	1.00	.80	.60	.40	1000 .75
PRINCE OF INDIA .....	10	.50	.40	.30	.25	.20	.15	1000 .75
PURPLE GLORY .....	100	4.00	3.00	2.00	1.60	1.20	1.00	1000 1.00
PURPLE QUEEN .....	10	.40	.35	.25	.20	.15	.10	1000 1.25
PYTHIA .....	100	4.00	3.00	2.00	1.60	1.20	1.00	1000 1.00
QUEEN LOUISE .....	10	4.00	3.50	2.75	2.00	1.50	1.00	100 3.00
QUEEN MARY .....	10	6.00	5.00	4.00	3.00	2.00	1.50	
RADIANT QUEEN .....	100	1.50	1.25	1.00	.80	.60	.40	Qt. 2.00
RAMASSES .....	10	3.00	2.50	2.00	1.75	1.50	1.00	100 2.00
RED LORY .....	10	2.00	1.50	1.25	1.00	.80	.70	100 .75
RED PHIPPS .....	10	1.75	1.50	1.00	.90	.70	.60	100 1.60
RODERICK DHU .....	10	.70	.60	.45	.35	.25	.20	1000 1.25
ROMANCE .....	10	.40	.35	.25	.20	.15	.10	1000 .50
ROSE MARIE PFITZER ...	10	20.00	16.00	14.00	12.00			10 2.00
ROSE MIST .....	100	1.60	1.40	1.20	1.00	.80	.60	1000 .50
ROSE MULBERRY * .....	100	2.00	1.40	1.20	1.00	.80	.60	Qt. 1.00
ROYAL LAVENDER .....	100	3.20	2.40	1.80	1.40	1.00	.75	1000 1.00
RUFFLED GOLD .....	10	.40	.35	.25	.20	.15	.10	
SALBACH'S PINK .....	10	.70	.60	.40	.30	.20	.15	1000 2.50
SCHUBERT .....	10	4.50	4.00	2.50	2.00	1.50	1.00	100 2.00
SCHWABEN GIRL .....	10	2.00	1.60	1.20	1.00	.80	.60	1000 8.00
SENRITA (Salbach) .....	100	2.40	1.80	1.40	1.20	1.00	.80	1000 .75
SENRITA (LANGLOIS) ...	10	.40	.35	.25	.20	.15	.10	1000 .75
SOLVEIG .....	Each	20.00	18.00	16.00	14.00	12.00	10.00	One 1.00
SPIRIT OF ST. LOUIS .....	100	3.00	2.60	2.00	1.50	1.00	.75	1000 1.00
SUNSHINE GIRL .....	100			3.60	2.40	2.00		1000 2.00
SWEET ROSE .....	100	3.00	2.50	2.00	1.50	1.00	.50	1000 2.00
THOMAS A. EDISON .....	10	1.75	1.50	1.00	.80	.60	.40	100 .75
TREVONIAN .....	10	25.00	20.00	15.00	12.00	9.00	6.00	100 3.00

Variety	Per	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	Bulblets
TRIUMPHATOR	10	1.75	1.50	.90	.70		100	1.00
TOBERSUN	100	7.00	6.50	5.00	4.00	2.50	1.50	1000 2.00
VEILCHENBLAU **	100	2.00	1.60	1.20	1.00	.80	.50	Qt. 2.40
WASAGA	10	16.00	12.00	9.00	7.00	5.00	4.00	100 8.00
WHITE STAR	100	2.00	1.75	1.50	1.00			Qt. 1.50
WHITE ORCHID	100	4.00	3.00	2.50	2.00	1.50	1.00	1000 1.50
WILLIAM KENT	100	4.00	3.00	2.00	1.50	1.25	1.00	1000 .75
YVONNE	100	2.20	1.80	1.40	1.20	.90	.70	1000 .75
ZILLAH	100	150.00	125.00	100.00	80.00	60.00	40.00	100 10.00
	10	18.00	14.40	11.25	9.00	6.75	4.50	10 1.50

**CALOGREEN:** Best there is for Scab Prevention; instructions included. Per Pound \$2.00, two pounds or more at \$1.75 per pound. 15c per ounce. Prepaid.

**NAPHTHALENE FLAKES:** They have advanced prices some this season. The first pound will cost 15c and every additional pound, 10c per pound. Prepaid to Zone 4.

**CRUDE NAPHTHALENE:** Just as reliable as the flakes, 12c for the first pound and each additional pound at 6c per pound. Prepaid to Zone 4. We can give you special price for quantity by express, not prepaid.

**WOODEN TREE LABELS:** Copper wired, painted. Per 100—50c, per 1000 \$4.00.

**STAKES:** No. 7 iron wire, galvanized with loop in one end, pointed at other. We use thousands of these. Two (2) feet long \$2.00 per 100. \$15.00 per 1000. Not prepaid.

**RAT SCENT:** A prepared grain used to kill rats, mice and moles. Large size—50c, Medium size—35c. Prepaid.

**HORTICULTURAL BOOKS:** Of all kinds; Catalog on request.

**IRIS—PEONIES—ROCKERY PLANTS:** List will be sent on application.

**INDESTRUCTO METAL LABELS:** For plants, trees, tubers, etc; Sheet copper, emboss names with metal stylus, furnished with labels; extra heavy copper wired, will last for years, outside; 12 for 15c or 100 for \$1.00.

**HAND SPADING FORKS:** Entire length of handles, with three flattened blades are 11 inches, or the length of a trowel; Ideal for lifting bulbs, in particular young stock, .45c each when ordered with other stock, when sent separately, add 10c for postage.

**TAT. Thalate ANT TRAPS, and TAT. ROACH TRAPS:** Free circular; The most efficient method known to science, .25c each, when sent with other merchandise.

**GATOR HIDE MULCH PAPER:** Wonderful results have been secured with mulch paper, often doubling the yield, in particular where irrigation is not possible; if interested we will send you a set of booklets, with prices, let us know how much ground is to be covered.

**HOPKAPS:** Gain two to three weeks in crop growth. Circulars free.

**CARBORUNDUM LAWN MOWER SHARPENER:** Files and stones; price list free.

# THE YEARS BEST BARGAIN

## OUR 1934 PRIZE OFFER FOR NEW MEMBERS

### **The New England Gladiolus Society—Abbreviated N. E. G. S.**

**THIS OFFER:** FOR NEW MEMBERS (only) and not renewals. \$1.00 pays for a full years membership, with all membership privileges; and includes THE FISCHER COLOR CHART, printed in 108 colors, tints and shades, invaluable to all who wish to use a reliable chart to ascertain the right color, shade or tints, of their glads. NEW members will also receive a copy of the 192 page, 1933 Yearbook and will receive their 1934 Yearbook issued in February, bigger and better than ever, our slogan is "5000 members in 1934". To receive the color chart we must have your \$1.00 before Nov. 1, 1934.

Our big new 1934 Yearbook will be sewed, and open flat like a book. It will be a one volume Encyclopedia of gladiolus facts, for quick and handy reference. We issue a new Yearbook each year, every year we put out a bigger and better book as our membership increases, these books are a complete review for the year, I do not think I ever found in any publication, or yearly collection of monthly publications, such helpful and instructive articles, every one written by a master in his particular field. How to Grow and exhibit bloom. Facts about thrips, "A Sure Cure," and about everything of importance that you can think of. It is my opinion that \$5.00 for the above offer would be the years best bargain, but every NEW member will get all of the above for \$1.00. IN ADDITION TO THE ABOVE OFFER WE ADD THIS EXTRA OFFER: For every **new membership** you send us, (not renewals) we will let you select FREE \$1.00 worth of bulbs of the following varieties, (only) size Large, Medium and Small, no bulblets. We do not care how many memberships any one person sends in, but they must be for (NEW) members and you must mail them with an order from this catalog for \$1.00 or more, if you do not send with an order we allow .50c only, for each new member, all bulbs will be mailed to the person sending the names. HERE ARE THE VARIETIES: Alight; Zillah; Trevonian; Mrs. Ray. P. Chase; Marolee; Marmora Sport; Helen Jacobs; Allenwood; Pink Show; and Fluffy Ruffles; AS A BIRTHDAY GIFT: A gift that will be long remembered at the nominal cost of \$1.00; If someone gave me a gift like this, I am sure that I would appreciate it much more than any other \$5.00 gift that I can call to memory.

All free bulbs net, no extras. Select from Retail List.

F. C. HORNBERGER.

**AMERICAN GLADIOLUS SOCIETY**, Abbreviated A. G. S. issues a monthly magazine, The Gladiolus Review, cost of annual membership \$2.00 this includes a years subscription to the Review, we will accept your application if you wish to join the A. G. S. We do not make any offer as I am not a member.

**EMPIRE STATE GLADIOLUS SOCIETY:** affiliated with the A. G. S. membership costs \$2.00 per year and includes the Gladiolus Review, for one year, for each membership sent us, we will give you .50c worth of bulbs, OUR SELECTION ONLY; and the bulbs must be sent with an order.

## 1934 BRIEFS ON THrips

### Thrips Can Be Controlled and Eliminated: This is Past History.

Read on another page what a noted investigator said about our article in last season's Catalog, "Co-operation vs. Thrips Control". We were flooded with letters of approval. We can still supply this article on request.

Nearly all growers who have had several years experience have eliminated thrips. The best method for the amateur and small grower is naphthalene. After you dig your bulbs, let them dry a few weeks, then remove roots and put the bulbs in bags, and after adding 1 ounce or more of naphthalene to each 100 bulbs, tie bag and put in a room 60 F. or above for three weeks. Then remove from bags and place bulbs in shallow boxes or trays and place in a cool, well ventilated storage. If you can maintain temperature below 50 F. it will be more desirable as thrips do not increase in storage that is held below 50 F. About three weeks before you are ready to plant, give bulbs a second naphthalene treatment. If you have larger lots, and wish to leave them in trays, you can add the naphthalene, then cover boxes tightly with heavy paper and stack in a solid pile. The main object is to confine the fumes; if you have a small, tight room or even a very large, tight dry goods box on which you can place a tight cover, you will then have an ideal "fumigator" in which to stack your boxes and trays of bulbs. One man used an old trunk.

Because your plants seemed entirely free of thrips the past season is no reason to relax your vigilance. Remember a very few insects as a rule are never even discovered, as it is only when conditions are favorable and they increase in large numbers that damage is noticeable.

Naphthalene Flakes (or crude) will keep your bulbs 100% free of thrips in any storage. We have proven this in our investigations.

**OUTSIDE INFESTATION:** This is an ever present hazard, as it is my belief that in nearly all cases where the insect is still troublesome in sections where the ground freezes it is caused by people who do not know about the PROVEN METHODS OF PREVENTION as many other commercial bulb Growers as well as myself have pointed out in the past two seasons. Just a few days ago our State Nursery inspector said to me that practically all persons who grew glads around the city of D—— had thrips the past summer except Mr. S——, and Mr. S. bought all his bulbs from us, and used the naphthalene treatment as we advised him. In 1932 I remember that one man had a planting of glads that became infested by migratory insects. They appeared late in August, and in such large numbers on the outside leaves of the plants that you could count fifty or more adults on many single plants. What do you think was the cause of this heavy migration? About 400 feet away was a residence and small garden in which grew a very few plants, I do not think over 200 or 300 mixed varieties. These were untreated stock and were heavily infested. After they had destroyed the host plants they migrated to the larger planting nearby.

There are millions of persons who grow a few glads in an indifferent manner. In most cases they do not come in contact with any publication or information about thrips control or elimination and not knowing the cause of their loss, ascribe it to various other causes and go on replanting, storing and increasing thrips. As far as the INFORMED public is concerned, you need have no worry at all concerning thrips control. It is an assured and proven fact.

Thrips made their first destructive appearance in the year 1930, causing damage in Eastern Canada and Ohio, and they have now spread to every state in the Union. They were very severe last season on the Pacific Coast. I have letters in my file that show the damage to have been as high as a 75% loss of the entire cut flower crop. Do not be misled by false advertising from any section claiming entire freedom from thrips damage.

I can prove these claims false from the records of the Canadian Department of Entomology which has gone to the trouble of very careful investigation of this entire problem.

Last Spring we had our crops planted on two very large farms at Brant, N. Y. but even though our plantings were a considerable distance from nearby residences, we treated free all bulbs that we thought would be planted within a zone that might prove unsafe, and it was very cheap crop insurance.

I do not think that growers on large farms will have much danger of migratory insects. This hazard is met mainly on town lots and small farms where many small individual plantings are near to each other. The only way to play safe is to preach to all, the simple, safe, cheap and effective naphthalene treatment. The cost is so low as to mean nothing at all, and last summer while at Cornell College, I found them using the crude naphthalene with just as good results, perhaps just a little better than the flakes. The latter is a cheap treatment but the crude form costs only a fraction of what the flakes cost. We can now supply both the crude and the flakes.

If you think that nearby plantings are likely to cause you trouble, after your plants are about four inches high, spray about once a week with the following formula. There are many other sprays in use but this one has been proven to be cheap and one of the most effective; recommended by the Department of Entomology. Prepare as follows: To three gallons of water, add one and one half pints of molasses and two heaping tablespoons of paris green; mix thoroughly and keep well agitated while spraying as the poison is heavy and has a tendency to settle to the bottom of container. Apply as a fine spray with considerable force, keeping nozzle near to plants. It has been reported to me that infested plants have been kept clean and free of thrips by the VIGOROUS USE of the garden hose, where water is available under pressure to use on the plants. The idea is to give the plants a short but vigorous spraying of cold water several times weekly, using the nozzle near to the plants, applying the water with much force. It has been stated that infested stock has been kept clean by this method as it is a well known fact that where irrigation is frequently used or in very wet weather thrips increase so slowly as to do but little if any damage. The real danger from thrips is NUMBERS. If you read our 1932 Catalog you realize how one or two insects can, under favorable conditions, in a very short time increase to millions. Hot, dry weather favors their rapid increase.

**RESISTANCE OR IMMUNITY:** Thrips favor certain varieties more than others, and some writers have claimed for certain varieties, including Giant Nymph, that they were immune to damage, but I know of one man who lost 10,000 Giant Nymph last season from thrips damage, it is our opinion that they will damage all varieties when there is not much to discriminate between, the so called resistant varieties are left for last, if infestation is light, they are not likely to show any damage whatever.

I have not touched on other control methods, as the larger growers who wish to use them can get all the information they need from the U. S. Department of Entomology. For the average person, naphthalene is the most practical. Hot water is simple and effective, but it is somewhat difficult to maintain the proper even temperature for the twenty minute treatment. If you do use hot water, do not let it drop below 112 F. or go much above 115 F. at any time as it was proven at Cornell College last season that hot water, when used above 120 F. caused serious damage and weakened growth of plants.

We recommend a fall and a spring fumigation with naphthalene, and if you dip for "scab control," use the lye treatment. One 10c can of common lye, such as you buy in the grocery store, to every twenty gallons of water. Let bulbs in this for ten to twelve hours. It will make them look dark, but that will do no harm. Better let them dry off before you plant, as it is a "messy job" to handle fresh treated, wet bulbs. The lye treatment for scab is thought to be helpful as a thrips treatment also, although entomologists have not admitted this. Use wooden container for lye mixture.

**NOTE:** When fumigating in spring, do so before sprouts or roots grow out. Bulbs should be dormant.

# GROWERS CAN SAVE LABOR BY TIMELY CULTIVATION

By H. S. THOMPSON in *Farm Bureau News*

Growers can save labor by timely cultivation. By timely cultivation I mean cultivation that is given when there is need for it, and when the crop will be benefited by it.

Cultivation given when there is no need for it is not timely and is likely to do more harm than good. The most timely cultivation is that given when weeds are just breaking through the soil. For at this time they can be killed by shallow cultivation which merely breaks the crust and stirs the surface. By the time weeds have become well established, they have already done considerable damage to the crop, and to eradicate them requires relatively deep cultivation. Deep cultivation destroys many of the roots of the crop plants and this may result in a serious check in growth.

**NOTE:**—It has been proven by experimental results at Ithaca and on Long Island, that very deep cultivation is harmful to many kinds of plant roots; a more shallow cultivation is best. Also it has been proven that where you have recently cultivated, extra cultivations will be of no benefit. To quote Thompson, "A light rain wets only the surface two or three inches, so that cultivating to this depth results in loss of a large part of the water that reached the soil in such light rains". Late cultivations were not of much value.

In the experiments, cultivating beets 7 times was equal to cultivating them 10.6 times; and 7 cultivations of carrots were as good as 11.4 cultivations; cultivating onions 8 times was as good as cultivating them 13 times.

## Do Glads Change Color?

Practically all growers hear this question very often, and all of them give an answer depending on their experience. I think in most cases, people who ask this question started with a mixture. As some varieties will increase ten to twenty times faster than other very slow propagators, it is reasonable to suppose that in a very few years a mixture will have dwindled to a very few colors. This is true in particular where no bulblets are saved, and only bulbs are planted over and over each year. It is a well known fact that with some varieties the same original bulb reproduces itself each year for many years (sometimes ten or more years) while many of the varieties (where no new bulbs are propagated from bulblets) will only last a few years and then die out. This will leave only the very strong (The survival of the fittest) and the long lived varieties. So you may start with a mixture of fifty or more, and in a few years have only a few varieties left. Of course you may have nearly as many bulbs as when you started, as many also increase by division, and where you plant one bulb you may dig three or more. This is one good reason why you should plant named varieties in place of mixtures. You can keep a better check on their performance, and you are more sure just what to expect.

If you want a mixture, where all the varieties have been selected, because they are ALL STRONG GROWERS; and all will increase fast, and do well under all kinds of weather and soil conditions, ask for COMMERCIAL CHAMPIONS MIXTURE listed with Special Collections.

But aside from the foregoing, fertilizing elements and chemicals sometimes make radical changes in the color; at least for the one season that they make contact with such fertilizers. I remember many years ago when I was still growing a well known yellow variety, Golden King, introduced by Black in 1914. Although I knew this variety very well and had grown it for years, I did not know it when I found it growing in another growers fields; and the reason for the radical change of color was nothing more than an excessive use of hen manure. Sometimes extremes of temperature and weather cause slight changes in coloring; often a "streaking", "mottling" or "splashing" of deeper color, but outside of the foregoing there are no color changes except by "SPORTS" or mutations, and I have given very careful study to this subject for many years. You will find this article continued under the head of SPORTS. Of course it is true that a variety grown in a much different climate will have some slight change in color, as it will when forced under glass, but you will know the variety when you see it.

## Sports — or Mutations

These are color changes, as well as organic changes of the plant. They are more common than generally supposed, as we have selected and propagated hundreds of separate specimens. No Gladiolus variety will maintain after long propagation (in all its increase) the exact reproduction of the original plant. Variations are taking place at all times, sometimes very slight, at other times very radical, in excessive color changes, or other organic changes. We call them SPORTS.

Last season we selected four plants of Mother Machree where the color change was complete and did not resemble the original color in any way. This season, 1933, these four plants were carefully checked under separate label; two reverted back completely to the color of Mother Machree, and two have remained true to the new color. My experience has taught me that the latter two will now remain that color. Sometimes slight temporary color changes are caused by some kinds of fertilizing material. At other times, extreme weather conditions cause color changes that are only temporary, but we have often found that many varieties, making only a slight color change will remain that way. We have made selections along this line and have been able to propagate such slight color changes from one bulb in all its increase of several years.

There are several well known varieties that are supposed to have originated as sports. In growing these, no matter how pure our stock, we have always found a fair number of "Rouges"; that is when growing, say Dr. Elkins you are sure to find some "Pendletons" from time to time (Dr. Elkins is a sport from Mrs. F. Pendleton). The same can be said of all varieties that originated as Sports. I remember one year when we were growing Wilbrinck, which originated as a Sport of Halley; one plant of Wilbrinck partly reverted to the Halley color, but this particular plant was composed of wide stripes of Wilbrinck color intermixed with stripes of the Halley color. We propagate this plant some years; all the increase remained true to this mixed, and striped coloring.

We have selected from 5 to 6 distinctly different sports from one single variety, and we think the limit much higher than this, we also know that in a number of instances, several growers, in various sections, widely removed, have selected the same identical sport, although their stock was not from the same source. One variety just recently introduced, and that originated as a sport, is known to have been selected by three different growers, in widely separated places; I remember some years ago, a man selected what he thought to be a new and distinct sport, of Mrs. F. Pendleton, and he thought he had a new variety until I told him it was identical with Dr. Elkins, that was introduced by Kunderd and originated as a Mrs. Pendleton sport. The man that had the new sport, had a plant that originated in his own plantings as a sport, it was not an accidental mixture of Dr. Elkins as he had grown Mrs. Pendleton for years and never had any Elkins stock on his place, but this shows the possibility of a variety that originates as a sport, it may at any time, be reproduced in some other planting of the original variety. There has been much argument as to the origin of the variety "Marmora". Errey states that he found the original plant growing on a piece of ground where he had planted some Emile Aubrun seedlings the year before, and believes it to be an Aubrun seedling. It may be as Errey states, but indications point strongly to the fact that it may have been a sport of Emile Aubrun, for no matter how pure your stock of Marmora, you are likely to find Emile Aubrun plants quite frequently. We have a very large stock of Marmora, and each year you can pick hundreds of flowers of Marmora that will have patches of Aubrun color on them; sometimes half of one petal, sometimes nearly all of one side of a spike, and even a patch of Aubrun color that is barely discernible; but all are likely to prove true the next season. For this reason I have thought Marmora originated as a Sport, as it has all the traits of a Sport. Of course there are some well known varieties like Paul Pfitzer, where no matter how pure your stock, you can pull many lighter colored glads from them each season. These assume many different shades, but if you will make careful observations and tests you will find them all to be Sports and not "rouges" as some might suppose.

(A "rouge" is some other variety accidentally mixed with your bulbs while handling, while a "sport" is a color change taking place in a variety. As a rule it is to all purposes the same variety as the others, but its changed color makes it appear like some other variety, and such it becomes in fact unless it "reverts" back to the original color the next season which a certain percent of all Sports do.)

Sports are common among many kinds of plants and trees; sometimes they originate where only a part of the plant sports, but where propagation may be secured from the changed buds or bud wood. I can cite a very well known apple which originated from the bud wood where only one limb of the original tree sported. We may also mention the varigated form of Yucca and many other plants. As a general rule, in our tests, where only a part of a blossom changes color, such "sporting" is but temporary and will likely prove true the next season, but where the color change is complete, the largest number of such "Sports" remain like the new color, and all of the increase comes true to the changed color, so far as coloring is concerned, we have a distinctly different colored Glad. In some instances about 10% to 20% of all complete Sports also revert back to the original the next season, but if they remain true to the new color two seasons, that color has as a rule become well established.

Many permanent color changes are very slight and are often thought to be due to weather conditions or to fertilizers, but are really permanent changes. Many of you have perhaps noticed this in the stock of some of the older varieties. I have noticed this in many varieties, from many different sources. You can see this in Crimson Glow, Early Sunrise, Dr. Norton and many others. They could be selected as to shade and would prove more or less that way. I remember one year I gave one bulb of Mrs. F. C. H. to a local man. This one plant had some of the pink tinting that you often see in a small percent of all white varieties under certain climatic conditions, yet in all other respects it was an identical plant of Mrs. F. C. Hornberger but this one plant and all of its increases of several years, continued to produce these same badly discolored bloom, instead of the clear white flowers for which Mrs. F. C. H. is noted, in all other respects the plant was identical with the original stock.

The great value of careful selection of Gladiolus must be evident to all. Seed growers pay much attention to selection of true to type plants, as they understand this variability in plant life, and know that rigid selection is the only method that will most nearly retain the true characteristics of the original plant. We must not regard the coloring of Glads or other plants as "set" or "fixed". It is more or less "variable" at all times. Color may fade out and become much lighter, which it does in most changes, but it may also become deeper or cause other organic changes that may become enough "fixed" as to become a new variety. Extremes of weather and temperature, chemicals and fertilizers and other factors influence this "variability". In most cases, this disturbance of coloring is only a temporary feature, but in many instances it becomes permanent, and so becomes a "Sport". This Sport may be completely different in coloring, or where the color change is slight, it may only assume a slightly different shade of the same coloring, or perhaps only certain throat or other markings are changed and the general color remains the same.

Some varieties are much more subject to this "trait" or "fault" than others. Among some varieties there is seldom if ever a sport; among other varieties it is of quite frequent occurrence, among them being Paul Pfitzer. We estimate that a complete color change, or a plant that changes its color in a radical way and remains that way, will be found, averaging all our varieties, about ten or more plants to each million bulbs grown each year. But if we selected only the most "variable" varieties, and took our average from these alone, perhaps we might say there would be a color change or sport to each ten to twenty thousand bulbs grown each year. I think it safe to say that the variety Paul Pfitzer has produced for us about one Sport to each 2000 large bulbs produced; and to make sure this is a "trait" of that variety and not some fault of our original stock, we have bought many different lots of Paul Pfitzer from the best known and most highly regarded growers in this country. They all act the same way.

## Weak or Eccentric Varieties

I do not like to use the word "weak" in this connection as it does not do justice to this subject. I think "eccentric" is the better term to apply to that growing list of new varieties that are often called weak growers. Many of them, when placed in their proper environment of soil, climate, seed bed and moisture conditions, do give wonderful performance. Many varieties that give A1 performance on the Pacific Coast are a flop here and vice versa. Many of these same varieties when grown under irrigation, in rich, sandy loam, and given more ideal seed bed conditions, give very satisfactory performance, but when you grow them in the east, south or mid-west, under non-irrigation conditions, many of them are very unsatisfactory. An eccentric variety under ideal seed bed conditions or under irrigation and very good soil conditions, may appear to be a strong plant, some may even be inclined to say a vigorous grower, may appear to be a super glad, but the real test of this class of glads, comes when they must resist adverse growing conditions, such as is found in the east, south and mid-west where glads are grown without irrigation, in many kinds of soil, and subject at times to an oversupply of rain, and then again to long dry spells, in past years, in many plantings, I have noticed weak varieties turn yellow under the same growing conditions, where varieties like Betty Nuthall, would be, dark green and growing vigorously, and producing extra fine bloom. The weak varieties that suffered from dry weather conditions, were not diseased, but perfectly healthy, clean stock, but they could not **resist adverse growing conditions**, these are the varieties that do not survive, under the working of natures law of the "survival of the fittest." There are too many new varieties of this type, and the reason is that breeders do not give enough consideration to vitality, when breeding new varieties, they can not all be grown in "ideal seed beds". Many are highly exploited by irrigation growers, and others having very ideal growing conditions, it is these varieties that require ideal seed bed conditions if you are to make any success with them. (Our county, Erie, has 96 different soil types, from U. S. Soil Survey just made for New York State).

This rule does not apply to glads only. It is true of plants as large and hardy as our apple trees. If you ever studied fruit growing, you know that even some well known apples will perform well only in a limited area; others perform well in nearly all sections. So it is with glads, and practically all other plants, trees or shrubs.

Soil, or more properly, seed bed conditions are a big factor in results with all varieties. Two growers may live only a few miles apart, but one may be located in a warm, sandy valley, and the other at a very high altitude above the valley and his soil may be distinctly different. Two men may live near each other and have very similar soil and climatic environment, but may fertilize much differently. One may have excellent drainage, the other poor drainage; all these factors go to produce results.

I think it safe to say that more than 75% of all glads grown in this country are grown without any kind of artificial irrigation, and must depend on natural rainfall for their water supply, hence the importance of the conservation of moisture, proper cultivation, mulching, and building good seed beds by incorporating in them such materials as will tend to hold the moisture in reserve for the plants, and yet keep the mechanical condition of the soil and drainage so perfect, that scab and rot will not menace the plants. This is the object and ideal of soil building, soils are not built in a year, it requires careful planning and systematic building year after year, to raise our soils up to the high ideals we have set for them to attain.

## One Hundred Per Cent Seed Beds

Is there such a thing as a 100% seed bed, and what is meant by this term? When you plant very valuable small seeds or seeds difficult to germinate, you make your seed bed conditions as ideal as possible. In its preparation, you are guided by the type and kind of

seeds you will plant, the same as you do when you prepare greenhouse, hot bed or cold frame seed beds. If you do not have the right soil or conditions, you **make or build them**. You compost or make a soil that will approach, as near as possible, to your ideal, 100% seed bed conditions.

I know one well known grower who grows all his new seedlings under almost 100% seed bed conditions. Everything is as near 100% perfect as he can make them. His soil is just the right type and texture of well drained, sandy loam; a soil that under ordinary conditions has been proven the most satisfactory for Gladiolus culture. He has improved the mechanical conditions of his soil, and added all the humus a soil should have. His irrigation system I consider as near perfect as we can make them, and in addition, he maintains an almost perfect artificial soil mulch. Added to that, almost perfect fertilization, and you have conditions almost as ideal as you create them in the greenhouse. This is what I mean by 100% seed beds.

A short time ago, a nationally known glad fan, said to me, in commenting on the above almost perfect seed bed, "I called at Mr. Blank's garden, and Blank was away on a vacation. I noticed a wonderful glad, and when I looked at the label found it to be Minuet. Now I have grown Minuet for years and thought I produced fine quality flowers, but never yet have I seen such a spike, and knowing the variety so well, I did not recognize it in this almost perfect specimen."

But how high do you think the average seed bed will rate in comparison? I do not think over 50% and many not over 25%. So you see the importance of very careful preparation of the land you intend to use to grow your exhibition bloom. A 25% or 50% seed bed can only give you 25% or 50% flowers; while the near 100% bed will give you near 100% flowers. I have proven this so many times in my twenty years experience as to leave not even the shadow of a doubt as to results. In nearly all the big shows today bloom from seed beds rating from 25% up to 100% compete on an equal footing. It must be clear to you, that to compete with the vast amount of 100% seed bed stock that is now shown, you must produce growing conditions to equal theirs. And last but not least, the so-called "weak or eccentric" varieties can be shown to advantage (only) when grown under nearly 100% seed bed conditions. Some can not stand a check in growth.

A few years ago, I gave a relative a collection of the more common varieties, such as Mary Pickford, K's Marshal Foch and others. These were planted in an old celery seed bed where seed bed conditions were nearly 100% perfect. They were given ample watering. Never before or since have I seen such "Pickfords" and "M. Fochs" and others; they were simply beyond ordinary description, and it was sometime before I recognized the varieties. At another time, the first year I bought Golden Measure bulblets, I prepared such a seed bed, and kept it irrigated. I planted 60 peeled bulblets; 57 plants grew, and when dug, something like 35 or 40 were #1-2-3 and the balance nearly all #4—and I had in addition over 1700 bulblets; grown in New York state. All of you who have ever grown Golden Measure know what a record this is. I am sure you see the object of ideal seed bed conditions. This does not mean that good glads cannot be grown on poorer soils; any soil that will produce good vegetable crops will as a rule produce good glads, but on the poorer soils plant the more hardy and reliable growers. On all soils, drainage is important and even more so on heavy soils.

You can grow good, satisfactory flowers on quite ordinary soil, that is soil that would not likely rate over 50% as a seed bed for glads, but do not expect to grow top notch exhibition stock under such conditions. Elsewhere we print directions for growing glads, in particular for the amateur.

To produce a good crop of bulbs, you should use a light, well drained soil, and yet it should have enough humus or such material that will absorb and retain moisture like a sponge. To accomplish this purpose, well rotted manure, alfalfa, clover or other green crops are plowed under from time to time. The land should have perfect drainage and yet have the mechanical ability to hold or retain moisture. This is ideal soil for bulb production. For that reason most growers use well drained, sandy loam, gravel or sandy soil.

